

pose), erect an axle, and place on its joint a large ball, say of 4 inches in diameter, to represent the sun. Next procure a common watch-glass (the more convex its surface the better); put a drop of water or oil on the surface of the looking-glass, and place the convex point of the watch-glass on it; this dome gradually elevate the looking-glass and the watch-glass will, at a certain point of elevation, become coloured with a rapid rotary motion: when the watch-glass is in motion, care must be taken to incline the looking-glass, so as to let the watch-

glass rotate on a descending plane, which will easily be accomplished after a few trials. I had a ball cemented with gum to the watch-glass, and on its surface a map of the world is delineated, as at B. fig. 2. This affords a pleasing and very simple illustration of the motion of the earth on its own axis, and of its circuit round the sun.

"I am, Sir, your obedient servant,
"E. HARRISON."

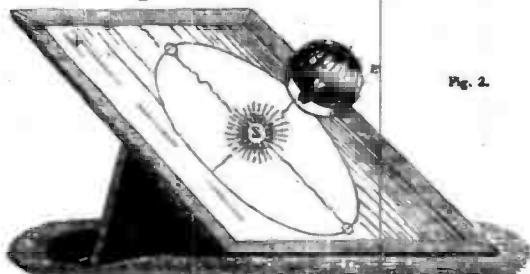


Fig. 2.

FRENCH ARCHITECTS—THE TWO MANSARTS. (PERIOD OF LOUIS XIV.)

FRANÇOIS MANSART, born at Paris in 1598, of a family originally Italian, was the pupil of his uncle, GERMAIN GAUTHIER (architect to Louis XIII.), under whom the natural genius of the young artist was early developed. His first works were the restoration of the *Hôtel de Toulouse*, and the great porch of the *Chapel des Feuillants*, at Paris, both now destroyed. He was also the architect of many seats of the nobility, dating in the first half of the seventeenth century; his most principal work was the church of *Les Filles de St. Marie*, and we find him subsequently undertaking an important edifice contemplated by Gaston de France, Duke of Orleans, the *Castle of Blois*, but which was never completed.

In François Mansart we have a remarkable instance of vacillation and inconstancy of purpose, arising probably from the competition in architecture proper to the period of Louis XIV., during which a rage for highly decorated buildings prevailed. Mansart was commanded by the Queen, Anne of Austria, to furnish designs for a splendid church, the *Pal de Grace*; they were approved, and he was entrusted with the erection, but had scarcely accomplished the first stages, when a reconsideration of his plans induced him to desire the taking down of the building; the Queen, however, becoming alarmed at the fickleness of Mansart, and the cost likely to be incurred, directed other architects to be called in to complete the work, which proceeded no further on the original plan, for we find that Mansart, piqued at his ejection, procured patrons to build the church called *La Chapelle du Prieuré*, which he completed from the designs given for the *Pal de Grace*, reducing the latter to the proportion of one-third, and the competition affords at this day full proof of the superiority of his talents.

He shortly afterwards built the church of *Des Dames de St. Marie*, and subsequently the *Château de Maisons*, near St. Germain en Laye, which latter confirmed the reputation he had acquired. To his instability alone is to be attributed his not having been entrusted with the erection of the *Louvre*. The minister of the day, COLBERT, had referred to him for designs, had approved his sketches, and urged him to perfect them as a whole, but so unavailingly, that L. BERNINI was called from Rome for that purpose, though it ultimately devolved to PERSSAULT to raise that edifice.

François Mansart died at Paris in September, 1666; his style has much of grandeur, founded upon antique models. No one better understood the general distribution of plans, and although his buildings do not possess all the elegance that characterized the period of Francis I., he failed in that feature only by aiming at conferring more of solidity upon those he undertook. With all his faults, he is entitled to rank with those who have done honour to the art in France.

JULES HARPAGNIN MANSART, nephew of François, and architect and superintendent of buildings to Louis XIV., was born in Paris in 1645. His father, first painter to the king, placed him under the direction of his uncle, where, becoming proud of his profession and name, he devoted himself to the first, and sustained the latter, with an ability and energy surpassing that of his relative and master. Endowed with pleasing and courtier-like manners, he had the good fortune to render himself acceptable to Louis XIV., who entrusted him with the most important architectural works of his reign; thus originated, in the absence of tried ability and from mere predilection, the high reputation to which Mansart attained, and which attached to him through life. Tenacious of the confidence of his sovereign, and intent on preserving that advantage, he cherished in him the taste for building with which posterity have reproached him, and which was one source of the profuse expenditure of his reign.

The *Castles of Marly*, of the great *Trianon*, and of *Chagny*, *Le Maison de St. Cyr*, the places *Vendôme* and *Victoire*, *Notre Dame de Versailles*, the *castles of Fontenay*, *de Dampierre*, and that of *Launayville*, belonging to the Duke of Lorraine, were built by Mansart; but the most conspicuous of his works are the *Château* or castle of *Versailles*, and the *Hôtel des Invalides*, at Paris. It is seldom an individual has been charged with the erection of so numerous a list of important works, and although his genius has not always equalled what might have been expected from it, few, in the midst of so many, and generally successful essays, would have incurred less of criticism or censure.

An intercourse with France of nearly thirty years had rendered the *Château de Versailles* a familiar object to numbers of our countrymen; to the untravelled, a sketch of it may be interesting. Viewed from a moderate distance, the lengthened line of building produces an imposing effect, but from afar its uniformity is fatiguing to the eye. It is composed of a large square, flanked by wings of considerable extent, enriched with projections of a triangular form, but of which the sameness is unpleasant. The interior plan is objectionable in many respects. The great staircase is too far removed from the entrance, and so obviously placed as to require a guide to its position; having ascended, there is no saloon of corresponding extent and character; a few small apartments lead to a badly lighted interior, and the continuity of the suites is broken by occasional alcoves and decent. Notwithstanding these defects, the details and ornaments are extremely beautiful. The orangery is an edifice adorned with columns of the Tuscan order, chaste in arrangement and of noble dimensions, but in a style less ornate than elsewhere visible. It is said not to be Mansart's design, but that of *Le Notre*, and this accounted for: Louis XIV. for once dissatisfied with the design of his favourite, re-

quired one from *Le Notre*, who endeavoured to excuse himself from meddling, by replying that his practice had not embraced the description of architecture required; the king, however, persisted, the design was furnished, and Mansart commanded to execute it. It should be mentioned that the *Chapel of Versailles*, the last work of Mansart, is richly ornamented, the Corinthian order prevailing in the arrangement; it is of considerable extent, and combines great elegance, with a profound knowledge of the art of disposal.

The *Hôtel des Invalides*, though somewhat heavy, is a majestic building, and remarkable for the spaciousness and convenience of the internal arrangements. Mansart has been accused of innovation in introducing, in the architecture of the Court of the Invalides, the Doric and Corinthian orders, without necessary intermediates, a dissuance generally admitted. On the subject of this building it is worthy of remark, that it gave occasion to some display of rivalry on the part of the French architect towards Sir C. Wren, then employed upon St. Paul's Cathedral. Mansart proposed the *Dome des Invalides*, and his plans having been approved by Louis, he executed that magnificent work, which is entitled to rank with the great efforts of this particular description, amongst those of St. Peter's, Rome, St. Sophia, Constantinople, and St. Paul's, are the most celebrated.

Perhaps no architect ever held for so long a period, and so uninterruptedly, the confidence of a royal master. His style, though captious, and often exuberant, displays in many instances the nobility of art. He is remembered also that Mansart lived in an age of rapaciousness and avidity for ornament, and if a palliative were needed for his compliances, it may readily be found in the appreciation that style has met with in our own day. Further, he did much for his own and the sister arts, obtained the re-establishment of the Academy of Painting, and the restoration of its revenues and exhibitions, of which it had been despoiled in pitiful economy, during the protracted wars in which France was engaged. Jules Harpagnin Mansart died at Marly, in May, 1708.

An abundant supply of water is said to have been found at Southampton, by means of the Artesian well, after boring to the depth of 980 feet.

Nearly 3,000 workmen of Paris had enrolled their names at the Ministry of Marine as colonists for the Marquesa Islands.

Architectural Competition.

Under this head we shall give notices of pending competitions, and shall feel obliged by our friends forwarding us the accounts of what may fall in their way of this character. We shall also be glad to give announcements of the selected designs; and think that, by such publicity, the present very defective system of decision may be amended. Publicity is sometimes a remedy where more direct measures have failed.

NEW CHURCH, TORQUAY.—11th March.
HIGHFIELD CHAPEL.—Plans, elevations, &c., for the best, 25/1; model, 10/-; 15th March.

NOTICES OF CONTRACTS.

The following contracts are advertised in different papers, and we have kept a register of the particulars of each at the office, which may be referred to on application. In the continuation of this plan, which we further ourselves will be of service to our readers, material assistance will be rendered by the forwarding of papers from our country friends, or by any other means of notification, of which they may choose to avail themselves.

REPAIRING THE PAINTED GLASS OF THE EAST WINDOW IN LEIGH CHURCH, ENGL.—Rev. R. KIRK, Leigh Rectory, Rochford.

FOR FURNISHING A NUMBER OF HOUSES.—Z. Y., 129, Mount-street, Berkeley-square.

BRISTOL AND EXETER RAILWAY.—No. 1, 1, The Strand, No. 2, 2, mile 4 chains; No. 3, 1 mile 36 chains.—Engine-office, Temple Meads, Bristol.

PAVING AND KEEPING IN REPAIR STREETS IN CAMBRIDGE.—Mr. Mandell, March 28.

PAVING STREETS, ST. JAMES'S, GREENWELL.—Mr. Toss, Coventry, March 16.

PAVING STREETS, ST. MARK'S, LONDON.—Mr. Robert Olden, Islington, March 22.

RAILWAY SUBURBS, (West London Railway).—Mr. John Thompson, 11, Abchurch Lane, March 14.

FOR MARQUETRY, AND PIG-IRON.—Her Majesty's Dock-Yard, Chertsey, March 10.

PAVING, HOLBORN PALACE.—March 17th, Mr. W. H. James, Clerk.

SURVEYOR OF PAVEMENTS, CHRIST CHURCH.—Election 15th March.